Device and Method for Fluidizing and Coating of Ultrafine Particles

Technology available for licensing: The invention is large-area, flat-panel photo-detectors with sub-nanosecond time resolution based on microchannel plates.

Benefits:

- The large-area, flat-panel photo-detectors enable the economic construction of sampling calorimeters with, for example, enhanced capability to measure local energy deposition, depth-of-interaction, time-of-flight, and/or directionality of showers.

- In certain embodiments, sub-nanosecond timing resolution supplies correlated position and time measurements over large areas.

- The use of thin flat-panel viewing radiators on both sides of a radiation-creating medium allows simultaneous measurement of Cherenkov and scintillation radiation in each layer of the calorimeter.

- The detectors may be used in a variety of applications including, for example, medical imaging, security, and particle and nuclear physics.

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